

WHAT IS CLAIMED IS:

1. A radiation filtering system comprising:
  - a plurality of filtering plates of which a selected one or more of the plates can be placed in a path of emitted radiation;
  - means for causing a selection of one or more of the plates;
  - the plates being fixed to the means for causing a selection by means of a joint;
  - and
  - means for modifying an orientation of a plate about its respective joint.
2. An imaging apparatus comprising:
  - means for providing a source of emitted radiation;
  - means for detecting the emitted radiation;
  - a filter system for the emitted radiation comprising:
    - a plurality of filtering plates of which a selected one or more of the plates can be placed in a path of emitted radiation;
    - means for causing a selection of one or more of the plates;
    - the plates being fixed to the means for causing a selection by means of a joint; and
    - means for modifying an orientation of a plate about its respective joint.
3. A radiation emitting device comprising:
  - a chamber provided with first and second elements that cooperate to provide emitted radiation;
  - means for permitting the emitted radiation to be directed out of the chamber;
  - a plurality of filtering plates of which a selected one or more of the plates can be placed in a path of emitted radiation;
  - means for causing a selection of one or more of the plates;
  - the plates being fixed to the means for causing a selection by means of a joint;
  - and
  - means for modifying an orientation of a plate about its respective joint.

4. An X-ray tube comprising:

a chamber provided with a cathode and an anode;

a window in this chamber to let through X-rays emitted by the anode;

an X-ray filtering system comprising:

a set of filtration plates held by a distributor, wherein the filtration plates are fixed to the distributor by means of a joint;

and facing the window, the filtering system comprises a mechanism to modify an orientation of a filtration plate around its respective joint.

5. The tube according to claim 4 wherein the joint comprises a rotation shaft and bearings respectively mounted on an edge of the filtration plate and on an arm of the distributor or vice versa.

6. The tube according to claim 4 wherein the joint comprises a flexible strip for connection between an edge of the filtration plate and an end of an arm of the distributor.

7. The tube according to claim 4 wherein the distributor comprises a roundabout formed by a conveyor circulating continuously on the rim of two wheels, the rotational axes of the wheels being parallel to each other and to a direction of the X-rays emitted by the tube.

8. The tube according to claim 5 wherein the distributor comprises a roundabout formed by a conveyor circulating continuously on the rim of two wheels, the rotational axes of the wheels being parallel to each other and to a direction of the X-rays emitted by the tube.

9. The tube according to claim 6 wherein the distributor comprises a roundabout formed by a conveyor circulating continuously on the rim of two wheels, the rotational axes of the wheels being parallel to each other and to a direction of the X-rays emitted by the tube.

10. The tube according to claim 4 wherein the distributor comprises a distributor wheel, an axis of rotation of which is parallel to a direction of the X-rays emitted by the tube.

11. The tube according to claim 5 wherein the distributor comprises a distributor wheel, an axis of rotation of which is parallel to a direction of the X-rays emitted by the tube.

12. The tube according to claim 6 wherein the distributor comprises a distributor wheel, an axis of rotation of which is parallel to a direction of the X-rays emitted by the tube.

13. The tube according to claim 4 wherein the mechanism comprises a ramp so that the filtration plate rotates about its joint as a result of motion of the distributor.

14. The tube according to claim 5 wherein the mechanism comprises a ramp so that the filtration plate rotates about its joint as a result of motion of the distributor.

15. The tube according to claim 6 wherein the mechanism comprises a ramp so that the filtration plate rotates about its joint as a result of motion of the distributor.

16. The tube according to claim 7 wherein the mechanism comprises a ramp so that the filtration plate rotates about its joint as a result of motion of the distributor.

17. The tube according to claim 10 wherein the mechanism comprises a ramp so that the filtration plate rotates about its joint as a result of motion of the distributor.

18. The tube according to claim 4 wherein the mechanism comprises a pusher device to cause the filtration plate rotate about its joint.

19. The tube according to claim 5 wherein the mechanism comprises a pusher device to cause the filtration plate rotate about its joint.

20. The tube according to claim 6 wherein the mechanism comprises a pusher device to cause the filtration plate rotate about its joint.

21. The tube according to claim 7 wherein the mechanism comprises a pusher device to cause the filtration plate rotate about its joint.

22. The tube according to claim 10 wherein the mechanism comprises a pusher device to cause the filtration plate rotate about its joint.

23. The tube according to claim 13 wherein the mechanism comprises a pusher device to cause the filtration plate rotate about its joint.

24. The tube according to claim 18 wherein the mechanism comprises a spring to push the filtration plate back towards the pusher device.

25. The tube according to claim 5 wherein the mechanism comprises a spring to push the filtration plate back towards the pusher device.

26. The tube according to claim 6 wherein the mechanism comprises a spring to push the filtration plate back towards the pusher device.

27. The tube according to claim 7 wherein the mechanism comprises a spring to push the filtration plate back towards the pusher device.

28. The tube according to claim 10 wherein the mechanism comprises a spring to push the filtration plate back towards the pusher device.

29. The tube according to claim 13 wherein the mechanism comprises a spring to push the filtration plate back towards the pusher device.

30. The tube according to claim 18 wherein the pusher device is motor-driven and wherein the filtering system receives a command to cause the filtration plate to occupy intermediate positions with respect to the window between two extreme positions.

31. The tube according to claim 24 wherein the pusher device is motor-driven and wherein the filtering system receives a command to cause the filtration plate to occupy intermediate positions with respect to the window between two extreme positions.

32. The tube according to claim 4 wherein the filtration plate is mounted in the filtration system by means of a frame with guide-ways.

33. The tube according to claim 5 wherein the filtration plate is mounted in the filtration system by means of a frame with guide-ways.

34. The tube according to claim 6 wherein the filtration plate is mounted in the filtration system by means of a frame with guide-ways.

35. The tube according to claim 7 wherein the filtration plate is mounted in the filtration system by means of a frame with guide-ways.

36. The tube according to claim 10 wherein the filtration plate is mounted in the filtration system by means of a frame with guide-ways.

37. The tube according to claim 13 wherein the filtration plate is mounted in the filtration system by means of a frame with guide-ways.

38. The tube according to claim 18 wherein the filtration plate is mounted in the filtration system by means of a frame with guide-ways.

39. The tube according to claim 24 wherein the filtration plate is mounted in the filtration system by means of a frame with guide-ways.

40. The tube according to claim 30 wherein the filtration plate is mounted in the filtration system by means of a frame with guide-ways.